

EP 1 098 320

4. A magnetic tape cartridge comprising a magnetic tape wound around a single reel, a cartridge casing in which the reel is housed for rotation and a reel stopper means which locks the reel not to rotate when the magnetic tape cartridge is not being used and releases the reel to permit rotation thereof when the magnetic tape cartridge is to be used, wherein the improvement comprises that

the reel stopper means comprises a braking member which is movable between a locking position where it is in contact with the reel to restrict rotation of the reel and a releasing position where it is away from the reel to permit rotation of the same, an urging member which urges the braking member toward the locking position, and a releasing member which is rotated integrally with the reel and moves the braking member toward the releasing position in response to a reel chucking action of the reel drive means of a tape drive,

the braking member is provided with a braking gear which is adapted to be engaged, to restrict rotation of the reel, with an engagement gear tooth on an engagement projection formed on the reel, and

each of the gear teeth of the braking gear has a first inclined surface which is brought into abutment against the engagement gear teeth when the reel is rotated in the tape-unwinding direction with the braking gear and the engagement gear tooth in mesh with each other and a second inclined surface which is brought into abutment against the engagement gear teeth when the reel is rotated in the tape-winding direction with the braking gear and the engagement gear tooth in mesh with each other, the first and second inclined surfaces forming therebetween an apical angle not larger than 90°, and the interior angle between the first inclined surface and the vertical being not larger than the interior angle between the second inclined surface and the vertical.

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4. A magnetic tape cartridge comprising a magnetic tape wound around a single reel, a cartridge casing in which the reel is housed for rotation and a reel stopper means which locks the reel not to rotate when the magnetic tape cartridge is not being used and releases the reel to permit rotation thereof when the magnetic tape cartridge is to be used, wherein the improvement comprises that

the reel stopper means comprises a braking member which is movable between a locking position where it is in contact with the reel to restrict rotation of the reel and a releasing position where it is away from the reel to permit rotation of the same, an urging member which urges the braking member toward the locking position, and a releasing member which is rotated integrally with the reel and moves the braking member toward the releasing position in response to a reel chucking action of the reel drive means of a tape drive,

the braking member is provided with a braking gear which is adapted to be engaged, to restrict rotation of the reel, with an engagement gear tooth on an engagement projection formed on the reel, and

each of the gear teeth of the braking gear has a first inclined surface which is brought into abutment against the engagement gear teeth when the reel is rotated in the tape-unwinding direction with the braking gear and the engagement gear tooth in mesh with each other and a second inclined surface which is brought into abutment against the engagement gear teeth when the reel is rotated in the tape-winding direction with the braking gear and the engagement gear tooth in mesh with each other, the first and second inclined surfaces forming therebetween an apical angle not larger than 90° and the interior angle between the first inclined surface and the vertical being not larger than the interior angle between the second inclined surface and the vertical.

SONY Exhibit 1016  
SONY v. FUJI